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- Barrois, Chas.*—Memoire sur les Schistes Metamorphiques de l'île de Croix (Morbihan). Ext. des Ann. de la Soc. Geol. du Nord, Lille.
- Memoire sur les Dictyospongidae des Psammites du Condroz. Ext. idem. Both from the author.
- Lydekker, R.*—Palæontologica Indica, Ser. x, Vol. III, Part 1. Additional Siwalik Perissodactyla and Proboscidea. Calcutta. 1884. From the author.
- Synopsis of the fossil Vertebrata of India, and note on the Bijori Labyrinthodont. From the author.
- Cook, G. H.*—Annual report of the State Geologist of New Jersey for 1883. Camden, 1883. From the State geologist.
- Loring, G. B.*—Report of the Commissioner of Agriculture for 1883. Washington, 1883. From the Commissioner.
- Vaillant, Leon.*—Exposition Univ. Internat. 1878. Rapports du Jury International. Les Poissons, Crustacés et Mollusques. Paris, 1880.
- Remarque sur les affinités naturelles de Poissons Malacopterygiens Abdominaux.
- Sur le genre *Ptychogaster* (Pomel), Chelonien fossile de Saint-Gerand-le-Puy.
- Nouvelles Archives du Museum D'Histoire Naturelle. Notice sur la Grande Salamandre du Japon, *Cryptobranchus japonicus* V. D. Hoeven.
- Note sur les Exemplaires du *Bagrus Buchananii* provenant du voyage de V. Jacquemont. Ext. Bull. de la Soc. Philome. de Paris, 1882.
- Vaillant, Leon, et Bocourt.*—Mission scientifique au Mexique et dans L'Amerique Centrale. 4^{me} Partie. Etudes sur les Poissons. Paris, 1883. All from Leon Vaillant.
- Allen, Alf., et al.*—Journal of Microscopy and Natural Science, April, 1884.
- Whitfield, R. P.*—Notice of some new species of primordial fossils in the collections of the Museum of Nat. Hist. N. Y. Ext. Bulletin of the Amer. Mus.
- Hitchcock C. H.*—Geological sections across New Hampshire and Vermont. Ext. Bulletin of the Amer. Mus. Both from the Amer. Mus. N. Y.
- Scudder, S. H.*—Two new and diverse types of Carboniferous Myriapods.
- The species of *Mylacris*, a Carboniferous genus of Cockroaches. Both in memoirs of the Boston Society Nat. Hist., Vol. III, No. IX. From the author.
- Parker, W. K.*—On the skeleton of the Marsipobranch Fishes. Part I. The Myxinoidei (*Myxine* and *Bdellostoma*). Part II. *Petromyzon*. Ext. Philos. Trans. Royal Soc., Part II, 1883. From the author.
- On the structure and development of the skull in the Crocodilia. Ext. Trans. Zool. Soc., Vol XI, Part IX, 1883. From the author,

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GENERAL NOTES.

GEOLOGY AND PALÆONTOLOGY.

ON THE FOSSIL FLORA OF GREENLAND.—Through Professor O. Heer's researches, 617 species of fossil plants are now known from Greenland, of which 335 belong to the Cretaceous and 282 to the Tertiary epoch. The Cretaceous plants occur in three distinct stages, described as the beds of Kome, Atane and Patort.

In the *Kome beds* vascular *Cryptogamia* (especially *Gleicheniæ*) and *Gymnosperms* (namely, ten *Cycadeæ*, forms analogous to the *Zamiæ*, and twenty-one *Conifers*, including five *Sequoiæ*) are found almost exclusively. The *Dicotyledoneæ* are represented only by a single species, *Populus primaeva*. The general character of the flora of these deposits, which may be compared with the *Urgonian strata*, indicates a subtropical climate.

In the *Atane beds* there occur, besides vascular Cryptogamia (some of which are arborescent) and Gymnosperms (eight Cycadeæ, twenty-seven Conifers; among others *Cycas steenstrupi* with well-developed carpels), ninety species of dicotyledoneæ, the appearance of which was very sudden. Here, also, the flora indicates a subtropical climate. The *Atane beds* may be compared with the Cenomanian strata.

In the *Patort beds*, twenty vascular Cryptogamia, eighteen Gymnosperms, five Monocotyledoneæ, and sixty six Dicotyledoneæ have been found. Among the Conifers the most abundant species is *Sequoia concinna* Heer (branches and fruits), nearly related to the Tertiary *Sequoia coulttsiæ*; *Sequoia langsdorffii* Brgr., a Tertiary species, is also frequently met with. The Dicotyledons consist of birches, alders, elms, fig-trees, walnuts, oaks and planes (the last two genera in great numbers); then come laurels, cinnamons, azalias, magnolias, &c., &c. The *Patort beds* also contain marine animals, which enable us to make an exact comparison with the deposits of other countries, and approximate them to the Upper Senonian of Europe, consequently to the Upper Chalk.

The Tertiary flora of Greenland is derived either from an Eocene deposit or from Lower Miocene beds. It includes in all 282 species, two of which also appear in the Chalk; twenty others are derived from Cretaceous plants, but the rest show no relationship to the Cretaceous flora. Moreover, tropical forms are entirely wanting, so that the climate had been profoundly modified; the mean temperature of the year in Greenland at the epoch of the Lower Miocene must have been about 12° C. (= 53°·6 F.), as evidenced by the presence of two fan-palms, magnolia, Sapindus, Dalbergia, &c. The Tertiary flora of Greenland has 114 species like those of Europe.—*Bibl. Univ., Arch. des Sci. October 15th, 1883, p. 355.*

GEOLOGICAL NOTES.—*General.*—MM. Mojsisovics and Neumayr (Beitr. z. Palæont. Ost. Ungarns, 1883) describe the trilobites of Bohemia.

Cambrian and Silurian.—W. Dames describes (Richthofen's China, Palæontology) fifteen species of trilobites from the Cambrian of Liao-Tung, near the Korean boundary. E. Kayser (*op. cit.*) describes a few Cambrian Brachiopoda from Liao-Tung, and adds several new species to the fossils of the Middle and Upper Silurian of the mountains of Tshau-tien. In the same work G. Lindström describes numerous species of corals from the Upper Silurian of Tshau-tien.—J. F. Whiteaves has described numerous fossils from a series of dolomites that lie between the Niagara and Onondaga formations, and are known in Canada as the "Guelph formation." The species include three corals, three brachiopods, sixteen lamellibranchs, two gasteropods and a trilobite that are new to science.

Devonian.—M. D. Œlhert (Bull. de la Soc. Geol. de France) describes four species of Chonetes known from the Devonian of

the west of France, and discusses the relationships of the genus. The same geologist also describes two new species of *Acrocutia*, *A. protei* and *A. silenii*, from the Lower Devonian of Mayenne. —E. Kayser (Richthofen's China) describes fourteen species of Devonian brachiopoda from Southwest China. Fourteen species of fossils were previously known from the Chinese Devonian.

Carboniferous.—C. Schwager (Richthofen's China) describes the flora of the Carboniferous strata of China and Japan. —E. Kayser (*op. cit.*) describes the collection of Upper Carboniferous fossils made by Baron Richthofen at Lo-Ping. This consisted of 1000 specimens and over fifty species, including *Leptodus richthofenii*, a new genus and species of fishes, *Phillipsia obtusicauda*, four nautili, two or three Orthoceratidæ and numerous lamelli-branches and brachiopods.

Jurassic.—M. Sauvage (*loc. cit.*) describes the fishes of the genus *Pleuropholis*, with the following new species, *P. egertoni*, *P. thiolleri*, *P. obtusirostris*, *P. lienardi*. The genus was first known from the Purbeck beds of England, and has since been found in the Lower Kimmeridge of Cervin, France. —M. P. J. Van Beneden (Bull. de l'Acad. Roy. de Belg.), has a note upon some cetacean bones, consisting of four vertebræ and two fragments of ribs, found in the Oligocene phosphatic beds between the Elbe and the Weser. He determines these bones to belong to two species of whalebone whales, of which the larger, *Pachycetus robustus*, was equal in size to *Balænoptera rostrata*, while the smaller, *P. humilis*, equaled *B. juddi*. With these cetacean remains occurred the sternebra of a great terrestrial mammal, probably that of *Lophiodon rhinoceroïdes* Geinitz. The same beds yield numerous mollusks and teeth and vertebræ of plagiostomes. The latter had been referred to *Lamna cuspidata*, *L. elegans* and *Myliobates dixonii*. —A. Locard (Arch. Mus. d'Hist. Nat. de Lyon, 1883), describes the Pliocene fresh-water shells of the basins of Lakes Tiberias, Antioch and Homs, seventy-one species in all, mostly new. Twenty-nine belong to *Unio*, thirteen to *Limnæa* and nine to *Melanopsis*. *Melania* and *Dreissena* are each represented by two species, *Planorbis* by one.

Tertiary.—L'Abbé Bazin (Bull. de la Soc. Geol. de France, 1883), has described the Echini of the middle Miocene of Brittany. The new species are *Echinocyamus lebescontei*, *Scutella circularis*, *Nucleolites dinanensis*, *Echinanthus armoricus*, *Echinolampas dinanensis*, *Brissus humberti* and *Spatangus britannus*. —Palæontologica Indica, series x, volume II, part 6, treats of the Siwalik and Narbada Carnivora. *Mellivora sivalensis* is known from three specimens obtained near the Ganges valley, while another ratel occurs in the Punjab. *Mellivorodon palæindicus* was intermediate in size between the ratel and the glutton, but probably more nearly allied to the former. Mr. Lydekker unites under *Lutra* several of Gray's genera, and adds to the already numerous recent and extinct

species *Lutra bathygnathius*. To the bears he adds *Ursus theobaldi*, which may probably be the ancestor of the aswail (*U. labiatus*), but had better developed molars. *Hyænarctos punjabensis* and *H. palæindicus* are considered to be distinct from *H. sivalensis*; *Amphicyon palæindicus* is added to the Canidæ and *Viverra durandi*, the largest known civet, to the Viverridæ; *Hyæna colvini* is separated from *H. sivalensis*, and is said to approach *Crocota*, and *H. macrostoma* constitutes an important link between the more typical members of the genus and the viverroid and canoid Carnivora. To the Felidæ are added *Æluropsis annectans*, and *Felis brachygnathus* and the occurrence of a hyænodon (*H. indicus*) in the Siwaliks is mentioned as a matter of extreme interest.—M. Lemoine (Bull. de la Soc. Geol. de France, 1883), describes *Neoplagiaulax eocenus* and *N. marshii*, from the Lower Eocene near Rheims. The genus is distinguished from *Plagiaulax* by the presence of a single premolar only on each side. M. Lemoine considers it as intermediate between *Plagiaulax* and the recent *Bettongia*.

MINERALOGY.¹

NATIVE IRON FROM NEW JERSEY.—As a deep well was being bored on the Van Horn farm, in Raritan township, Middlesex county, N. J., about three miles east of New Brunswick, in Triassic red shale, it was noticed that when the drill was raised from the well there were numerous particles and small grains of iron adhering to its lower end. This attracted the attention of Mr. J. F. Hotchkiss, of Plainfield, who found that particles of native iron occurred not only in the well, but in the surface earth about the farm.

An analysis of an unwashed sample gave J. B. Stillman:

Iron	Phosphorus	Sulphur	Silica	Titanic acid
76.12	0.27	1.23	11.20	0.21

Professor Cook also made repeated visits to the farm and picked out particles of metallic iron with a magnet, being satisfied that there was no mistake or deception in the case.

He states² that while a few of the grains are as large as pin heads, most of them are smaller and much is fine dust. Some of those brought up by the drill are but little oxidized on the surface, while those found in the soil are rusted, often so completely as to leave only a small particle of metallic iron in the center of the rusted grains. The metal flattens under the hammer, and is evidently native. Traces of copper are reported to occur in the iron.

The observation is of great interest. It is now well known that metallic iron occurs in trap, but its discovery in a sedimentary

¹ Edited by Professor H. CARVILL LEWIS, Academy of Natural Sciences, Philadelphia, to whom communications, papers for review, etc., should be sent.

² Geolog. Survey of N. J., Annual Report for 1883, p. 162.